1964

VICTORIA

FORTY-SECOND REPORT

OF THE

COMMISSION OF PUBLIC HEALTH

FOR THE

YEAR ENDED 30TH JUNE, 1964

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO SECTION 23 (3) OF THE HEALTH ACT 1958.

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COMMISSION OF PUBLIC HEALTH

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FORTY-SECOND REPORT OF THE

COMMISSION OF PUBLIC HEALTH 1963-64

To the Honorable Ronald Mack, M.L.C.

SIR,

We have the honour to submit, in accordance with Section 23 (3) of the *Health Act* 1958, our report for the year ended 30th June, 1964.

In submitting this report the Commission desires to draw attention to the expanding activities of the General Health Branch of the Department of Health as the administrative instrument of the Commission. These activities are not only due to the increase in the population of Victoria, particularly the metropolis, but to the increasing demands for higher standards required in a highly industrialized community. Every technological advance in chemical or physical science raises health problems requiring expert assessment and effective control so as not only to safeguard the health of persons directly engaged in industry, but also to protect the general community against pollution of the atmosphere or hazards which may result from the disposal of industrial wastes. These advances have resulted in added responsibilities in the control of chemical and physical hazards (including radiation), the control of industrial, domestic and agricultural poisons and the health hazards associated with poisonous residues from pesticides, the detection and measurement of poisonous residues and the setting up of safe tolerances in foods for human consumption. To mitigate the effects of accidental poisoning a Poisons Information Centre located at the Royal Children's Hospital has been in operation for the past two years.

As well as the increase in the above responsibilities, reports over the past ten years show a continuing increase in the community welfare services subsidized from and supervised by the General Health Branch. The vast expansion of part-time assistance in the home has enabled many persons to remain domiciled in their own home, thus obviating institutional care. The development of this service is shown by the increase in expenditure from £28,477 in the financial year 1953–54 to £313,532 in the financial year 1963–64.

All of these items are dealt with in detail in the report. The outstanding event in public health measures during the year was the introduction of compulsory chest X-rays to intensify efforts to reduce the incidence of tuberculosis in the community.

INTRODUCTION OF COMPULSORY CHEST X-RAYS.

Early in 1963 a review was made by the Director of Tuberculosis of the progress achieved in tuberculosis control in Victoria since 1948 when the Commonwealth-State Tuberculosis Agreement came into effect. Although the results reflected great credit on the whole of the tuberculosis service, it was apparent that the population cover achieved by voluntary mass X-ray surveys was not satisfactory. The following observations were made by the Director :—

(1) In 1954 when the population of the State was 2,480,877, attendances at X-ray Surveys reached a peak of 463,200. During the next eight years the efforts of the Division of X-ray Surveys were steadily intensified but the highest attendance in any year was 456,559—in 1962. The population of Victoria had by 1962 increased by more than half a million to 3,013,447 and it was quite clear that the percentage of the population attending mass surveys was not being maintained.

(2) Between 1955 and 1962 annual notifications of new cases of tuberculosis in Victoria varied from 698 to 974, an average of 830 each year, and there is no evidence of a decline in this figure. As approximately one-third of these were discovered in mass X-ray surveys these surveys assumed special significance in the over-all programme but their effectiveness was seriously retarded when it is considered that at the most only 50 per cent. of the eligible population attended for X-ray at any survey.

(3) In an attempt to improve on these attendance rates a special intensive voluntary mass X-ray survey was conducted in 1962 in the Essendon-Coburg municipalities. This special survey was widely publicized with particular emphasis directed towards the responsibilities of the public in such an important health campaign. However, only 58 per cent. of persons on the electoral rolls responded ; this campaign also failed to achieve the objective, i.e., of X-raying all adults in the area and so discovering the total amount of detectable tuberculosis infection in a section of the Victorian community.

As a result of these observations the Government decided to invoke legislation enacted in 1948 regarding compulsion for chest X-rays for citizens 21 years of age and over.

The first compulsory survey was undertaken in the Mildura Electorate in the second half of 1963 and 98·5 per cent of persons on the amended electoral rolls attended for X-rays. The remaining 1·5 per cent were subsequently encouraged to meet their obligations under the Act and all of the persons concerned have been accounted for.

This survey was well received by the public as the attendance figures indicate and the results showed a notification rate for active and possibly active cases of tuberculosis of one per 1,700 of the population X-rayed compared with an average of one per 2,500 found by mass surveys in recent years. In addition there was a considerably higher yield for non-tuberculosis abnormalities most of which were detected in the older members of the community.

TELODRIN PESTICIDE—HEYTESBURY SETTLEMENT.

Telodrin, a chlorinated hydrocarbon, was sprayed on several pastures in the Heytesbury Settlement area commencing in February, 1963, in an effort to control the underground caterpillar grub.

Some weeks later, reports came to hand of nervous symptoms occurring in dairy cattle grazed on sprayed pastures. A number of calves fed on the colostrum of cows were dying, following convulsions and other nervous symptoms. Deaths occurred among dogs and cats presumably from eating Telodrin poisoned rabbits. A 10-month old baby fed on cows milk developed a mild illness characterized by irritability and persistent crying ; the infant recovered within a week.

The possibility of human intoxication resulting from this situation prompted an investigation by the Health Department in collaboration with the Department of Agriculture, State Laboratories and Shell Chemical (Aust.) Pty. Ltd.

A total of four persons had experienced mild nervous symptoms, three of these were from the one household. In retrospect, it is not possible to determine the etiology of these illnesses ; causes other than the pesticide may have been responsible. However, the association of drinking milk from cows on treated land cannot be ignored. All of those affected recovered completely in a matter of a few days. As there was a considerable quantity of Telodrin contaminated milk consumed by humans, particularly infants and children, it would be logical to anticipate a wider spread of clinical illnesses if the milk had reached a critical level of concentration.

In view of the capacity of the fatty tissues of the body to concentrate and store this chemical it was decided to advise people on treated farms to discontinue drinking milk from their own cows. In addition expectant and nursing mothers were warned not to breast feed their babies.

Other developments in this episode included the withdrawal from sale of Telodrin by the manufacturers and its removal by the Director of Agriculture from the list of registered fungicides. The Victorian Food Standards Committee adopted permissible limits of Telodrin in milk (2 parts in 100 million parts of milk) and butter (1 part in 10 million parts of butter—dry state.)

One unusual aspect has been the prolonged secretion rate of this chemical from fatty storage depots in cows. After one year, there are still traces in the milk from certain animals ; however, the levels are within the permissible range laid down by the Food Standards Committee.

Regular testing of milk was implemented which assured that no milk or dairy products contaminated with Telodrin above the permitted levels were released for human consumption.

POLIOMYELITIS.

During the twelve months ending the 30th June, 1964, nineteen cases of Poliomyelitis occurred in Victoria, eighteen of the cases being paralytic and one non-paralytic ; one of these cases, the non-paralytic, had received the full course of injections of Salk Poliomyelitis Vaccine, two had received two Salk injections and the other sixteen cases had not received any Salk Vaccine.

The quarterly breakdown of the cases was—

	Cases.
July to September	8
October to December	6
January to March	5
April to June	Nil

The age group incidence of the nineteen cases for the year 1963–1964 is—

Years.	Cases.
0— 5	11
6—15	4
15—25	0
26 and over	4

The age incidence was from 14 months to 44 years. Fifteen of the cases were spinal poliomyelitis, two bulbar and one bulbo-spinal.

Type 1 of poliomyelitis virus was recovered from the faeces of seventeen of the cases. A virus was not recovered from the other two cases. Fifteen of the cases were from the metropolitan area and four from the country. The only area in which more than one case occurred was at Newport, where there were two cases, the first with onset in November, 1963, and the other in December, 1963.

The incidence of poliomyelitis in 1956 was 252 and since the introduction of Salk Vaccine to Victoria in July, 1956, the incidence has been—

Year.	Cases.
1957	12
1958	60
1959	30
1960	23
1961	68
1962	20
1963	21
1964 (to 30th June, 1964)	5

The Salk Vaccination Status of the Community as at 30th June, 1959 to 30th June, 1963 was—

Group.	Percentage Immunized (3 Salk).				
	As at 30th June, 1959.	As at 30th June, 1960.	As at 30th June, 1961.	As at 30th June, 1962.	As at 30th June, 1963.
	%	%	%	%	%
15 months to 4 years	70	79	70	67	68
5 years to 14 years	69	74	77	78	80
15 years to 44 years	6	22	28	35	38

At 30th June, 1963, only 53 per cent. of people aged 15 months to 44 years had received their injections of Salk Vaccine. This is not enough to prevent possible epidemics.

During the year 937,144 doses of Salk Vaccine have been distributed to councils, an average of 18,022 per week. Of this approximately 800,000 doses were for fourth injections. Production of vaccine by the Commonwealth Serum Laboratories has been supplemented from time to time by imported Connaught Salk and supplies have been satisfactory.

For the past five and a half years, Fairfield Hospital Medical Research Unit has conducted a monthly virus survey of children attending a day creche and kindergarten in the metropolitan area. From some of the faecal specimens obtained in October, November, and December, 1963, Type 1 poliomyelitis virus was isolated. This was the type of poliomyelitis virus which had been isolated from patients over the previous six months. Measures were taken to prevent spread of the virus, and no cases occurred in the children of the creche nor in their contacts.

In June, 1964, Type 2 poliomyelitis which has not been found in the metropolitan area for some eight years, was isolated from some of the faecal specimens collected that month. The publicity caused by this resulted in increased attendances of persons presenting for Salk immunization.

TUBERCULOSIS.

Emphasis has been directed towards a regular chest X-ray for all adults, especially the older age groups. This has alerted an interest in the continuing presence of tuberculosis in the community and of the associated problems and resulted in an increased use of the services provided by the Department.

Attendances.

Examinations.	Mass Chest X-rays.	Out-patient Chest Clinics.	B.C.G. Division.
1961	405,913	61,565	47,145
1962	456,559	61,324	57,705
1963	468,511	68,685	63,777

Notifications.	Population.	Notification of New Cases.	Morbidity Rate (100,000).	Deaths.	Mortality Rate. (100,000).
1961	2,949,354	698	23·32	127	4·35
1962	3,013,447	781	25·65	101	3·35
1963	3,080,215	888	28·80	109	3·55

Of the 888 cases notified, 767 cases were pulmonary tuberculosis and of the pulmonary cases 72 per cent. were proven bacteriologically.

Migrants represent 27 per cent. of the notifications and only 19 per cent. of the population.

It is noted that over half of the pulmonary tuberculosis is occurring in people over 45 years of age and three-quarters of these are men.

Tuberculin Reactor Rates in School Children.

It is encouraging to find that in recent years there has been a gradual decrease in the number of positive tuberculin reactors amongst children and the present rate of 2·98 per cent. of children 14 years of age is a satisfactory decline compared with 9·39 per cent. in 1954. The school children tested aged 18 years gave a rate of 12·6 per cent. and this would certainly appear to indicate that the risks of infection from tuberculosis still exist in our community when the relative protection of school life is passed. It also draws attention to the responsibility that our community has towards protecting the increasing number of uninfected children and adults. B.C.G. vaccination to children leaving school plays an important role in the protection of this group.

Case Register.

During the year a register of active or recently active cases of tuberculosis was established. It is recognized that this group constitutes the greatest public risk of infection to others and requires closer medical supervision. The register will permit a more effective means of avoiding loss of these patients to satisfactory medical supervision.

Tuberculosis in Children.

The notification rate of children under 15 years of age remains high at 13 per cent. of the total notifications. These children are usually found as a direct result of contact examinations. For instances, of 92 children admitted to the Austin Hospital suffering from active tuberculosis the probable adult source of infection was found in 86 cases.

Bacteriology Laboratory.

During the year an analysis was carried out of the results of the sensitivity testing for tuberculosis organisms isolated during routine examination of patients. A summary of these results indicates that there were only three cases presenting with organisms initially resistant to anti-tuberculosis drugs and that the development of resistance for those patients undergoing treatment has markedly reduced in recent years. This indicates that the present chemotherapy treatment regimes adopted throughout the State are satisfactory.

Hospitals, Sanatoria and Chalets.

Of all the persons notified, 89 per cent. commenced treatment in institutions. The average length of stay in sanatoria and chalets was approximately five months and surgical treatment was used for 4 per cent. of the patients with pulmonary tuberculosis compared with 8 per cent. in 1958.

Departmental policy is to encourage all patients with active tuberculosis to commence treatment in sanatoria or hospital. This has kept a continuous demand for beds in all institutions and it is not anticipated that any number of beds can be closed in the forseeable future.

Associated Organizations, &c.

Appreciation is acknowledged to the Victorian Tuberculosis Association for continued support both in the field of public education and assistance to necessitous tuberculosis families. Acknowledgment is also made of the help received from the clergy and representatives of various organizations who assist in various ways at departmental institutions.

EPIDEMIOLOGICAL REPORT.

Diphtheria.

Notifications of diphtheria including both cases and carriers totalled 110, of which 69 were from the metropolitan area, the balance being from Corio and country areas adjacent to Melbourne.

These notifications were spread over the twelve months as a continuation of the outbreak which commenced in April, 1963, and was referred to in the previous report of the Commission. The majority of the clinical cases had no history of prophylactic inoculations against the disease.

Municipalities throughout the State were informed of the situation by the Commission and urged to step up immunization campaigns wherever indicated. It was apparent that several municipalities had been tardy in conducting regular campaigns resulting in numbers of school children being inadequately immunized. This is particularly important when young children commence school and run the added risk of being exposed to infection.

Infectious Hepatitis.

Infectious hepatitis still continues as a highly prevalent disease in the community; the notified figures 3,838 for 1963, reveal an increase of over 300, compared with 3,535 for the previous year. This is the second highest incidence since this disease was proclaimed as a notifiable disease in 1952.

The epidemiological pattern has not materially changed over the years ; common vehicles of spread such as foodstuffs and water have not been incriminated in any explosive outbreaks. Personal contact, both direct and indirect, with infected individuals who may be (*a*) incubating the disease, (*b*) are ill or (*c*) carriers, is considered the commonest mode of spread.

The hopes that an effective prophylactic vaccine would be available have not been fulfilled to date ; however, research into propagating the causal viruses in the laboratory is proceeding in various centres. In Australia promising work along these lines is being currently conducted at the Epidemiological Research Unit, Fairfield Hospital, Melbourne.

Q. Fever.

An outbreak of Q. fever occurred in a large abattoir situated in an industrial suburb of Melbourne. Twenty-five cases were investigated by the Department in collaboration with the Fairfield Hospital laboratories. All the patients recovered from this influenza-like illness without any apparent complications.

The presumed source of infection was in sheep purchased in New South Wales in areas where this disease had been reported in abattoir workers. The outbreak had almost subsided before it came to notice ; consequently, the opportunities of tracing the infection in a particular batch or batches of live stock were nullified. Sheep and cattle do not evidence any signs of the disease ; they appear to be asymptomatic carriers of the organism and pass through the processing of slaughtering and meat inspection without arousing any suspicion of this carrier state. The organisms responsible (*rickettsiae*) for this disease are extremely light and easily become airborne from the infected animals resulting in contamination of the abattoir environment. Humans are usually infected by inhaling the contaminated air particularly where the organisms are adherent to dust particles.

The above outbreak and the episode in an animal by-product works during 1962 are the only recorded groups of cases of Q. fever occurring in this State.

Measles.

Measles reached epidemic proportions both in Melbourne and several country centres during the winter of 1963.

Although the disease is not notifiable, some indication of prevalence may be drawn from the numbers of patients admitted to Fairfield Hospital with complications such as pneumonia.

From April to November inclusive 758 such admissions were recorded at Fairfield, which would represent only a small ratio of the cases in the community.

There were no indications that the virus possessed any unusually virulent characteristics.

Influenza.

During the winter of 1963 the incidence of respiratory illnesses was high although virus influenza played an insignificant part. A similar situation is current during the 1964 winter with the exception that several isolations of Type A2 influenza have been made from patients. Laboratory investigations are proceeding ; however, at this juncture it would appear that the current strain is very closely allied to the Asian strain which occurred during 1957–58. The current strain of virus is not incorporated in the polyvalent influenza vaccine ; as these influenza strains are highly specific it is possible that those persons inoculated against influenza may not be adequately protected against this new strain (North Carolina).

In addition to virus influenza, a large number of cases of respiratory illness have been caused by the respiratory syncytial virus (RSV) and parainfluenzae viruses.

Redfin Fish Food Poisoning.

A summary of this puzzling food poisoning appeared in the last Report of the Commission.

Although a few sporadic episodes have come to notice over the past year the incidence is much lower than the previous twelve months. In all instances the source of the redfin has been traced back to the Lake Victoria-Rufus River area in south-western New South Wales.

Apart from the isolation of Staphylococcal organisms from a sample of fish and from the vomitus of two patients, there have been no developments of note. Laboratory tests on these ubiquitous Staphylococcal organisms failed to establish definite proof of a causal relationship. Post mortem contamination with these organisms in this instance is possible where the evidence in other cases of redfin food poisoning point strongly to some toxic factor inherent in the tissues of the fish prior to death.

Representations have again been made to the New South Wales authorities requesting them to post notices in the region of Lake Victoria warning persons of the danger of eating redfin caught in this locality.

Venereal Disease.

During the period 2,338 males and 683 females (total 3,021) attended the Government Clinic for venereal disease. Included in this were 165 men and 133 women who came for a blood test to conform with American visa requirements.

The number of cases of gonorrhoea and syphilis found among this group of 3,021 persons is as follows :—

—	Gonorrhoea.	Syphilis.
Men	663	32
Women	253	1
	916	33

The amount of gonorrhoea seen at the Clinic is about the same as in previous years. Reports of syphilis continue to decline.

Exotic Diseases Hospital—Fairfield.

The number of in-patients at the Exotic Diseases Hospital has remained fairly constant at six to eight for several years. Since July, 1963, there have been two admissions, both migrants, one born in Malta and the other in Sicily. An Italian-born lad, admitted in 1959, was discharged from the hospital this year.

All former patients attend the hospital at monthly intervals to obtain supplies of tablets to ensure they remain free of the disease.

Immunization Material issued to Municipalities 1962–63 and 1963–64.

Material.	Number of Doses.	
	1962–63.	1963–64.
Salk Vaccine	491,186	937,178
Triple Antigen	255,592	239,450
Combined Diphtheria and Tetanus Toxoid	120,314	146,536
Purified Tetanus Toxoid (A.P.A.)	31,822	33,552
Smallpox Vaccine	32,710	25,179
Diphtheria Prophylactic (P.T.A.P.)	5,690	3,415
Purified Diphtheria Toxoid (Diluted)	..	17,400
Diphtheria Prophylactic (P.T.A.P.) Diluted	..	864
Schick Test Toxin	5,310	7,425
Tetanus Toxoid (B.P.)	52	958
Pertussis Prophylactic (H.A.P.A.)	..	160

The increased demand for Salk vaccine arose out of the fourth inoculation provided during the year. In addition private practitioners have ordered increasing quantities of Salk vaccine, mainly for adults.

Triple Antigen doses declined but the combined Diphtheria-Tetanus Toxoid demand increased. Many more councils provide facilities at schools early in the year to give booster doses to the new pupils entering school.

There was comparatively little call for small pox vaccination ; only 25,179 doses were issued as against 32,710 in 1962–63.

MICROBIOLOGICAL DIAGNOSTIC UNIT.

University of Melbourne.

The past year has seen several alterations in the establishment of the Laboratory and a change in title from Public Health Laboratory to Microbiological Diagnostic Unit. The fundamental responsibility of the unit to the Health Department, however, remains unaltered, although it is anticipated that the scope of the work may be extended in the forseeable future.

The most noteworthy features of the past year have been as follows :—

(1) *Enteric Infections.*

A total of 301 *Salmonella* strains and 308 *Shigella* strains were isolated or identified in the Laboratory during 1963. A considerable number of the latter strains were forwarded from other States ; however, the majority of *Salmonella* strains were derived from patients in Victoria. *Salmonella typhi-murium* still dominates the picture but there have been significant increases in the number of *Salmonella newport* and *Salmonella havana* strains.

(2) *Diphtheria.*

During 1963, 66 strains of *C. diphtheria* were isolated from clinical or sub-clinical cases or carriers. Several interesting and unusual anomalies in the behaviour of these strains from the laboratory aspect were noted, both at this unit and at Fairfield Hospital. Further research is being conducted in an effort to determine the significance of certain of these changes in the characteristics of this organism.

(3) *Botulism.*

By far the most unusual investigation this year was occasioned by the fatal case of botulism following consumption of home bottled cantaloupe (this was reported in detail in the last report of the Commission). Animal inoculations established the presence of *Cl. botulinum* toxin type A ; unfortunately, the attempts to isolate the organism were unsuccessful. Subsequent bacteriological tests have shown the unsatisfactory nature of the recommended heating procedures insofar as ensuring the death of bacterial spores, particularly in regard to low-acid foods.

(4) *Brucellosis.*

This disease continues to be of some importance in the community. Some 66 possible cases were diagnozed serologically in 1963 ; whilst many of these were in rural areas, it is interesting to record that a significant number were found in the urban population. The bulk of these were migrants from Mediterranean countries and it is most likely that the infection was acquired by these patients whilst living in their homeland.

Annual Examinations.

A Comparison of Numbers for Years 1961–63.

Examination.	1961.	1962.	1963.
1. Upper Respiratory Tract Infection			
(*a*) Diphtheria (culture)	2,472	2,987	3,408
(*b*) B Haemolytic Streptococci—			
(i) Culture	3,442	3,604	3,622
(ii) Groupings	577	498	440
(iii) Anti-Streptolysin Titre	819	825	794
(*c*) Vincent's Infection (Smear)	2	3	7

ANNUAL EXAMINATIONS.—*continued.*

A comparison of numbers for the years 1961–63.—*continued.*

Examination.	1961.	1962.	1963.
2. Enteric Infection (Salmonella and Shigella)—			
(*a*) Cultures	3,994	2,910	2,843
(*b*) Identifications	405	394	618
(*c*) Widal Agglutinations	382	424	609
3. Serological Investigations—			
(*a*) Brucella	822	2,305	1,218
(*b*) Glandular Fever	337	345	236
(*c*) Leptospirosis	131	150	194
(*d*) Typhus Fever	81	60	50
(*e*) Toxoplasmosis	144	31	..
(*f*) Miscellaneous	228	26	91
4. Gonorrhoeal and Related Infection—			
(*a*) Gonorrhoea—			
(i) Smear	543	623	617
(ii) Culture	659	2,053	2,549
(*b*) Trichomonas and Moniliasis (Smear)	32	16	13
5. General Bacteriological Examinations, including endogenous infections, food-poisoning outbreaks, micro-biological examination of food, milk, &c.—			
(*a*) Cultures	774	758	970
(*b*) Drug Sensitivities	2,604	2,494	3,958
6. Water Examinations	336	278	327
7. Medical Mycology (Microscopic and Culture)	287	238	98
Totals	19,071	21,025	22,662

CHEMICAL LABORATORY.

The number of samples examined in the Health Laboratory during the past year increased by over 300, as compared with the previous twelve months, to a record 2,260. Those submitted by Departmental officers increased from 405 to 625, while municipal samples showed a corresponding rise, presumably as a result of the State's expanding population.

The increase in samples, coupled with several changes in personnel and delay in obtaining replacements, has resulted in increased work for staff members. Supplemented standards being currently introduced as a result of Commonwealth Food Standards Committee decisions will also entail additional analytical work.

Since March of the present year, the laboratory has been fully staffed, for the first time for an appreciable period. Approval has been given for the appointment of an additional chemist and a laboratory assistant to enable a programme of work on pesticide residues in foodstuffs to be carried out, and it is anticipated that appointments will be made in the near future. Shortage of accommodation, however, is becoming a matter of some concern. A certain amount of additional space will become available following the recent transfer of the milk testing section of the Agriculture Laboratory to new premises in the old Government Printer's building, but the position will not become really satisfactory until new laboratories are built.

Of samples taken under the Health Act, 9 per cent. failed to meet requirements, as compared with 11 per cent. in 1962–63 and 13 per cent. in 1961–62.

The more important aspects of the year's work are summarized below :—

Meat and Meat Products.

There has been an over-all improvement in the standard of meat and meat products, except for meat pies. Sulphur dioxide is still being used on fresh and chopped meat, about 9 per cent. of the samples received being adulterated with this preservative.

The following is a summary of meat samples submitted :—

—	Number of Samples Submitted.	Number Not Complying.	Proportion Not Complying in—		
			1963–64.	1962–63.	1961–62.
			%	%	%
Meat—					
Fresh	289	16	6	12	27
Chopped	243	34	14	22	22
Manufactured	72	2	3	5	25
Canned	4	1	25	..	20
Sausages and Sausage Meat	439	48	11	12	16
Tripe	11	6	55	45	77
Meat Pies	24	7	29	20	25

Dairy Products (Figures for the previous year in parenthesis).

—	Number Submitted.	Number Not Complying with Regulations.
Milk	331 (454)	11 (2)
Cream	18 (10)	1 (0)
Butter	31 (35)	1 (2)
Cheese	26 (15)	4 (1)
Ice Cream	9 (3)	1 (0)

A significant increase in the number of milk samples not complying will be noted. Most of these were deficient in milk fat, but two cases of added water were detected. It should be noted in this regard that approximately 1,200 additional samples of milk were examined during the year for the dairy supervisors of the Department of Agriculture, and a number of these samples also showed adulteration with water.

Contaminated Bottles.

Increased public vigilance, no doubt intensified by press publicity following an inquest in 1963 into the arsenical poisoning of a child after drinking from a contaminated soft drink bottle, has resulted in the forwarding of a large number of bottles of various foods. Findings are tabulated hereunder :—

Food.	Contaminating Material.
Soft drink	Rodent hairs, mould, and vegetable material
,, ,, ...	Earwig
,, ,, ...	Kerosene
,, ,, ...	Pieces of plastic
,, ,, ...	Mould
,, ,, ...	Vegetable material, yeast, and sand
,, ,, ...	Vegetable material and mould
,, ,, ...	Mineral oil and fat
,, ,, ...	Fat
,, ,, ...	Starch
,, ,, ...	Vegetable material
Beer	Paint
,, ...	Paint
,, ...	Piece of rubber
,, ...	Mould
Milk	Sand
Tomato Sauce	Clumps of mould fragments

In addition, twenty food bottles of various types were found to contain a liquid bleach.

Other Extraneous Matter in Food.

The following cases of food contamination were established :—

Food.	Contaminant.
Sugar	Rodent faeces
Coriander Seed	Rodent faeces
Bread	Oil and grease smears

Pressurized Packages.

A number of aerosol packages, particularly hair sprays, were examined after reports of an explosion with this type of product in Queensland. Although none of the containers submitted would be expected to explode, hazards inherent in pressurized packages were evidenced as a result of this inquiry and recommendations designed to minimize the danger were made.

Fluoride Survey.

Representative samples of Victorian water supplies were analyzed for fluoride. Results ranged from a trace to 0·5 part per million for natural fluoride, while the only fluoridated supply (Bacchus Marsh) gave a figure of 0·8 part per million. Most samples were in the region of 0·1 part per million, well below the level considered to be the optimum for dental health.

Miscellaneous.

Two samples labelled as olive oil were found not true to label, one of these consisting of peanut oil.

Excess copper was detected in soft drink and in butter wrapping paper, the former contravention being due to outdated equipment.

A bottle allegedly containing soft drink was found to contain only the undiluted syrup portion.

A product labelled " baking powder " proved to be cream of tartar.

A sample allegedly sold as soft drink and submitted for examination was proved to consist of urine.

Party novelties made to imitate various foods were also examined.

FOOD STANDARDS COMMITTEE.

The Food Standards Committee held four meetings during the past year, one of which was a special meeting devoted to setting maximum residues in milk and butter for a new pesticide, Telodrin. There has been no change in the personnel of the Committee during the year under review.

Uniform draft standards, formulated by the Commonwealth Food Standards Committee and recommended for adoption to all States by the National Health and Medical Research Council were approved for meat and meat products, flavoured milks, standards for prescribed colourings and lemon butter and related products, and these will be gazetted shortly. In addition, consideration was given to a number of proposed uniform standards in preliminary draft form, the most important of which dealt with cheese, soft drinks and cream and cream products.

A number of matters of local importance were discussed, some of which were referred for consideration by the Commonwealth Food Standards Committee in the interests of uniformity throughout the various States. An important amendment about to be gazetted prohibits the presence of penicillin or any other antibiotic in milk ; the widespread use of penicillin in the treatment of mastitis in cows can result in undesirable residues unless care is exercised by the dairy farmer.

PROPRIETARY MEDICINES ADVISORY COMMITTEE.

Since the Proprietary Medicines legislation came into operation in February, 1948, 14,124 applications for registration have been received, 741 of these having been received in the last twelve months. Of these applications 11,659 have been registered. Some 250 are still the subject of negotiations or have been deferred pending receipts of clinical or scientific information to justify the claims made and the remainder have been withdrawn.

A supplementary Register containing 500 additions was published in May of this year.

POISONS DIVISION.

Poisons administration was transferred from the Pharmacy Board of Victoria to the Department of Health on the 1st January, 1964. The Act which made this transfer also established a new and comprehensive system of licensing which controls the distribution of poisons at all levels from manufacturing to retail sales.

In order to prepare for this transfer, three sets of regulations were made relating to the issue of licences and permits, the labelling of products containing poisons and containers for poisons, and other details connected with the transfer of control.

The regulations were made on the advice of a fourteen member Poisons Advisory Committee which held twenty meetings during the period under review.

In addition, approximately 110 amendments were made to the Schedules to the Poisons Act. These amendments were effected by Proclamation.

The administration of the Act was greatly facilitated by the fact that the Deputy Registrar and two pharmaceutical chemist inspectors transferred from the Pharmacy Board to the Department of Health.

THE HOME HELP SERVICE.

The number of municipalities granted subsidies towards the cost of conducting home help services is now 147, of which 119 are functioning. Many country municipalities have great difficulty in obtaining or retaining staff, especially when the services of a home help are not required full time.

The number of cases assisted has increased over the last twelve months period by approximately 500 each quarter. During the first six months of this financial year, 7,860 householders received assistance. Of these approximately 60 per cent. were young families requiring assistance for only a few weeks and 30 per cent. elderly requiring assistance varying from a few weeks to the whole year. The balance of the cases were men and women without young families and not coming within the elderly bracket.

The number of requests for extended assistance for cases outside the elderly age group is increasing. In many instances the case is visited, and the local doctor, specialist or hospital almoner contacted. Two chronic diseases which demand the greatest amount of home help are cancer and multiple sclerosis.

Details regarding the Home Help Services are as follows:—

Total number of Councils granted subsidies to operate Home Help Services	147
Number of services operating	119
Home Helps engaged—	
330 full time 481 part time 513 hourly	1,324

Total number of householders assisted during the first six months of the financial year—7,860.

A further 212 householders applied to councils operating services for assistance but insufficient help was available to meet their need.

The total cost to the Government for the twelve months period—£313,532.

There has been no change in the subsidy available for councils towards the cost of conducting a service. The subsidy remains 4/5ths of the net cost to the council (excluding administrative costs) up to the ceiling wages for subsidy purposes. In addition £50 per annum is paid to a council towards the cost of administration.

The number of councils have broadened the sphere of duties for the Home Help Organizer to those of a Welfare Worker. In fact, several councils now refer to the organizer as social service or welfare officers.

It is found that many householders making application for home help require more than home help, and the organizer is often able to assist the family to obtain or to give advice as to how such help can be obtained. Also she is able to help the council with such services as " meals-on-wheels " and other services for the aged.

ELDERLY CITIZENS' CLUBS.

The Capital Grant for Elderly Citizens' Clubs was increased from £4,000 to £5,000 during the year. This has assisted many Councils to establish clubrooms sooner than they could otherwise have done, and has also helped councils to enlarge or to extend clubrooms already established.

Following the approval of the additional £1,000 grant for Elderly Citizens' Clubs, all councils establishing clubrooms costing more than £6,000 and not completed by the 1st July, 1963, were granted additional amounts. Approval for an increased amount was made in respect of nineteen clubs situated in eighteen municipalities.

In addition to these additional amounts approved, applications were received from 33 councils for capital and/or maintenance subsidies for 35 clubs.

The subsidies granted were as follows :—

Capital Grants (42)—	
For new clubs	13
Additional capital grants	26
For clubs already receiving maintenance subsidies ..	3
Maintenance Subsidies (8)—	
For new clubs	nil
For clubs granted capital subsidies	8
Total number of Clubs now granted subsidies:	clubs
Capital and/or Maintenance Subsidies for	117
Total Capital Grants approved for	108
Maintenance Subsidy approved	84
Approvals for Capital and Maintenance	75
Approvals for Capital Grant only	33
Approvals for Maintenance Grant only	9
	£
The Capital expended for twelve months period	63,489
Capital commitment at end of year	83,838
Maintenance expenditure for twelve months ..	39,930
Total cost to Government	103,419

There are now 84 clubs operating in clubrooms especially built or remodelled for the club, whilst a further 21 have received capital grants in respect of permanent premises, many of which will be completed shortly.

During the year many of the clubs extended their activities and more now offer such health services as hot meals, chiropody, sick visiting and handicraft classes.

Thirty-two clubs conduct meal services. Of these 22 serve meals at the clubrooms and 27 deliver the meals to the homes of the housebound elderly. Fifteen clubs operate chiropody clinics.

All clubs provide recreational facilities and most encourage members to undertake handicraft work. Club libraries are being built up and several clubs have made arrangements with the local municipal library for a sub-section to be set up at the clubrooms.

During the last twelve months councils conducting the clubs have been requested to forward with each claim for the maintenance subsidy special forms giving details of the club. The information requested on these forms will allow the value of each club to be assessed. Clubs not providing adequately for the elderly in the district will be visited more frequently and advice and encouragement given to the extension or improvement of the activities and services provided.

Shortly, an Assistant Adviser of Community Welfare Services will commence duty which will allow for more field work to be undertaken, thereby assisting municipalities to provide more efficient services.

During the year visits were made to 55 country municipalities and to 62 clubs, home help organizers and councils in the metropolitan area.

INDUSTRIAL HYGIENE DIVISION.

Occupational Health in the Stevedoring Industry.

Officers of the Division have continued to provide the 24-hour service to the industry which was commenced in May, 1963, to provide expert opinions on matters relating to occupational health. The function of the Scientific Officer in most cases is to ascertain the toxic properties of a chemical involved in a spillage and make recommendations with respect to precautions to be taken in decontamination or unloading procedures.

In the period covered by this report, a total of 101 inspections were made and of these, twenty were made outside ordinary working hours.

The general problem associated with the use of petrol-driven engines in the holds of ships was raised and an interim recommendation was made by the Division pending a final recommendation coming from the Occupational Health Committee of the National Health and Medical Research Council.

Benzene and Other Solvents.

In September, 1963, the notice of the Division was directed to the use in schools for leather-work of rubber solutions containing 90 per cent. benzene. The sollution was purchased in bottles containing less than 6 fluid ounces which were therefore exempted from the warning label required by the Benzene Regulations 1950. Whilst investigations failed to reveal any hazard in terms of the accepted safe limits of benzene in air for industrial exposure, it was considered that the practice was undesirable and the schools concerned were warned of the dangers of benzene.

The above finding prompted a recommendation made by the Division to the Commission of Public Health that the Regulations be amended to remove the exemption on labelling for containers of less than 6 ounces. This recommendation was accepted by the Commission and will be incorporated in the new Benzene Regulations which are currently under consideration and which are expected to come into operation early in 1965.

At the inquests on two deaths from blood dyscrasia in June, 1963, the question of the possible contribution of an industrial benzene exposure was raised. These two cases had previously been investigated by the Division and it had been established that in both cases the exposure had been considerably less than the currently accepted safe industrial exposure, i.e., considerably less as a time-weighted average than 25 parts per million for 40 hours per week. In both cases the exposure had been occasioned through the use of a common industrial solvent containing only about 2 per cent. benzene.

Although the coroner made no mention of benzene in his findings, the publicity given to some of the opinions expressed at the inquest resulted in wide spread anxiety in factories which had been using this solvent and, for some time following the inquest, the division was inundated with requests to assess the hazard in many of these factories. In all cases it was possible to reassure the people concerned that the use of this solvent had not exposed any person to a significant hazard from benzene.

In October, 1963, a preliminary investigation was made into the benzene hazard occasioned by its use as a fungicide in the Myrtleford-Bright-Ovens River tobacco growing area. Atmospheric tests established the presence of high concentrations of benzene for short periods and pointed to the need for a more thorough investigation to establish the over-all exposure. It is intended to pursue this investigation when the next season starts in September, 1964.

Routine surveillance of factories using benzene have shown that generally conditions are satisfactory. Only one factory showed excessive atmospheric concentrations of benzene and here considerable improvement followed the institution of recommended improvement in ventilation.

No cases of benzene poisoning were notified or discovered during the year.

Pesticides—Organic Phosphates.

The purchase of new equipment and further modification of the analytical method for estimating blood cholinesterase have greatly increased the capacity of the Division to handle samples for analysis. The analysis can now be carried out in 2 hours and up to 40 samples could be tested in one day if necessary.

A survey of blood cholinesterase levels was carried out on growers in the Pakenham area over the period from October, 1963, to January, 1964, with the intention of assessing the protection offered by various types of protective clothing. Altogether tests were done on 25 people and none showed any significant reduction in blood cholinesterase. As it turned out, the choice of this area for a survey was unfortunate as only the lesser toxic organic phosphates were being used and these only at infrequent intervals.

A number of organizations, including research institutes and packaging firms are taking advantage of the service to have their employees examined on a regular basis.

Altogether seven organizations are involved and 31 persons are being tested at intervals which average at about three months.

Throughout the year a total of 192 blood cholinesterase determinations were carried out leading to the detection of two cases of organic phosphate poisoning.

Arsenic.

A total of thirteen persons have been tested for suspected arsenical poisoning involving 29 analytical determinations of which 13 were on hair, 2 on nails and 14 on urine.

Only one person was found to have excessive arsenic and in this case there was no suggestion of industrial exposure.

Mercury.

Eight persons were tested for suspected mercury poisoning involving twelve determinations of mercury in urine; but no cases of poisoning were detected.

Pneumoconiosis Survey.

One hundred and forty-five persons were X-rayed during the year for investigation of possible pneumoconiosis.

Of these 91 were miners from the State Coal Mine, Wonthaggi, and amongst them four cases showing nodular opacities were seen. The four persons involved were interviewed and clinically assessed as probable cases of silicosis. Only one case showed a significant degree of disability.

This survey of the State Coal Mine is as yet incomplete and it is expected that it will be completed early next year after a further 60—70 miners have been X-rayed.

The remaining 54 of the total of 145 were not selected from any particular trade but included all persons referred for investigation and also persons thought to be exposed to a significant dust hazard in factories inspected by the Division.

Among these 54 there were found 1 case of silicosis, 2 cases of probably talcosis and one case of asbestosis.

Radiation.

The numbers of licences issued to various sections of the community with respect to the possession and use of irradiating apparatus and radio-active substances under the Irradiating Apparatus and Radio-Active Substances Regulations for the period covered by the Report are as follows:—

Irradiating Apparatus—

Medical	242
Hospitals	100
Dental	270
Industrial	85
Chiropractors	40
Educational and Research	40
Clinics and Groups	24
Government Bodies	36

Radio-Active Substances—

Medical	60
Industrial	120
Educational	50

There has been a steady increase in the number of new licences granted, particularly in the medical, industrial and research fields. In general this has been due to increasing numbers of applicants desiring to use the standard techniques, rather than the introduction of new techniques involving the use of radiation. The most significant increase has been in the research field where scientists are finding the use of radio isotypes to their advantage in many projects.

The Division now regularly receives per medium of the Commonwealth X-ray and Radium Laboratories the film badge reports from some 153 installations where workers are exposed to ionizing radiation. The average weekly radiation dose received by these workers as shown to be far less than the maximum permitted dose.

On the industrial side, applications of note were those received from industrial radiographers wishing to use radio-active sources of activity higher than normally used.

This is consistent with overseas practice where it is found more economical and practical to use quite large sources. These licences were granted with the provision that the sources be used under strict safety surveillance in approved remote control devices.

The use of remote control devices is considered to be a decided advance in safety practice in this field, as it overcomes the exposure of the operator to the unshielded source when he is undertaking the manipulations necessary with the conventional techniques.

The Division is at this time represented on a Sub-Committee of the National Health and Medical Research Council, working on the drafting of a Code of Practice for the control and safe handling of Sealed Sources used in Industrial Radiography. It is hoped that this Code will explain in some detail to the radiographers what steps are necessary to maintain safety in this field.

In the medical sphere, the standards of radiation protection have slowly improved since the introduction of the Regulations. In particular, the use of lead shields for X-ray technicians is now accepted as safe practice in X-ray departments.

Of particular interest is the work being done on the question of radiation levels in rooms adjacent to superficial X-ray therapy installations ; work is continuing to ensure compliance with recommended levels.

Lead.

The Industrial Hygiene problems associated with lead come under both the Lead Workers (Medical Examination) Regulations and the Harmful Gases, Vapours, Fumes, Mists, Smokes and Dusts Regulations.

These latter regulations require that the concentration of lead in air in the working environment be kept below 0·15 milligrams per cubic metre of air.

The Lead Workers (Medical Examination) Regulations require that certain medical tests, notably stippled cell counts, be regularly performed on persons working in certain processes in which lead or compounds of lead are used. The results of these tests must be reported to the Department together with a medical opinion as to whether or not the person concerned is lead poisoned.

In the year 1963–64, 1,700 workers came under these regulations and 5,190 reports on these workers were received. In addition 304 lead workers or industrial workers attended the Division's Laboratories for haematological and urinary tests to more closely evaluate lead exposure. Of the total of 1,700 lead workers on whom reports were received, 30 were certified as being lead poisoned to a degree requiring their temporary removal to a lead free environment.

A new development was the introduction of coproporphyrin tests performed by selected persons in organizations employing lead workers. These persons are trained by the Division and the test used is a simplified version of the coproporphyrin test used in the Division, the standards used to evaluate the test being supplied by this laboratory. Four manufacturers are at present making these tests and in one case, that of a large battery manufacturer, sufficient data has been gathered from the tests to allow a comprehensive

re-assessment of the factory process ventilation and dust control. This data is now being used to improve these facilities. It is anticipated that this technique of co-opting industrial personnel to make factory coproporphyrin surveys will be used increasingly in the future alongside the classical stippled cell counts and lead in air determinations.

The Division's Laboratories performed the following analyses and tests in relation to lead hygiene :—

2,680 Stippled Cell Counts.
406 Coproporphyrin Determinations.
168 Urinary Lead Determinations.

In addition 86 full blood examinations were performed by the haematology laboratory for various purposes.

Medical Examinations of Patients.

During the year a total of 53 patients were examined medically and amongst these were :—

(1) 1 case of arsenical poisoning, non-industrial.
(2) 2 cases of narcosis from solvent fumes.
(3) 14 cases of pneumoconiosis.
(4) 4 cases of lead poisoning.
(5) 3 cases of allergy to vegetable dusts.
(6) 1 case of a rare syndrome of intracranial hypertension with peripheral neuritis where the possibility of methanol intoxication was raised.
(7) 10 cases of anxiety hysteria with psychosomatic manifestations originally thought to be of industrial toxic origin.
(8) 1 case of mercury poisoning.

Scientific Activities.

The use of new equipment purchased during the year has greatly increased the efficiency of the field work of the Division.

The Personal Sampler, a light-weight battery operated pump and air sampler has enabled the exposure of a worker to toxic dusts to be integrated and evaluated over an 8-hour period.

The Carbon Monoxide Poisoning Test Kit has enabled field estimations of carbon monoxide poisoning by analysis of blood or exhaled air. This kit has proved of great value in the work done on exposure to the exhaust fumes from internal combustion engines in badly ventilated spaces.

The use of the Combustible Gas Meter has proved invaluable in the solvent field by enabling rapid assessments to be made of solvent vapour concentrations.

Initial troubles in the use of the new Long Term Dust Sampler have been overcome and it is expected that this instrument will be given much use in the future.

The Scientific Officers have continued to maintain a close liaison with their counterparts in other States.

ENGINEERING DIVISION.

Sewerage.

New sewerage schemes were brought into operation in two provincial towns, Tatura and Mooroopna, bringing the total of operating schemes in Victoria to 54. Three (3) Sewerage Authorities were constituted during the year, namely, at Cohuna, Toora and Willaura. Construction for the town of Redcliffs is proceeding and has been commenced for Lang Lang. Proposals to establish ten (10) new Authorities have been investigated and acceptance of the treatment site and process has been recommended to the State Rivers and Water Supply Commission in each instance.

The Chief Engineer and the Assistant Chief Health Officer (Public Health) attended a public meeting at Drouin where a ballot was to be conducted among the rate-payers concerning the sewering of the town. In the subsequent ballot, however, the proposal was rejected.

All provincial sewage treatment plants were inspected during the year and samples collected for analysis ; the total number of these inspections was 99. Twenty-four (24) inspections were made at the Bacchus Marsh treatment works in connexion with the special investigation referred to in the last report of the Commission. Due to the upset caused to the works by the discharge of the milk waste from a milk factory in the town to the sewerage system and the enlargement of the works to cope with this waste, the investigation has been temporarily suspended.

Septic Tank Installations.

Plans examined for new individual septic tank installations numbered 242 ; in addition mass septic tank schemes in ten (10) country towns were provided.

Ten (10) proposals for sewerage treatment works serving factories where the treated effluent passed to a water course were examined and recommendations forwarded to the respective municipal authorities in accordance with the requirements of the Septic Tank Regulations. Inspections of completed installations totalled 282.

Stream Pollution.

Two (2) approvals in relation to disposal of trade wastes from new industries to streams were issued by the Commission in accordance with the provisions of Section 82 of the Health Act and two (2) similarly in connexion with additions to existing factories. Four (4) inspections of completed works were made during the year.

Investigations in connexion with existing cases of stream pollution numbered ten (10) ; one (1) successful prosecution was conducted in respect to a milk factory discharging waste to a stream which was a source of water supply.

Offensive Trades and Garbage Depots.

Plans were examined for eight (8) new abattoir buildings and additions to 28 existing abattoirs. Inspections of abattoirs and other offensive trades numbered 21.

Investigations into the establishment of eight (8) municipal garbage depots were carried out.

Swimming Pools.

Eighty-seven inspections were made mainly of municipal pools and the quality of the water and operation of the purification plant were checked ; advice on the operational procedure was given.

Water Supply.

Sixty-one (61) inspections were made of water supply plants for Victorian towns, the main consideration being in connexion with the operation of the chlorination equipment. At the request of the Public Works Committee inquiring into the future sources of Melbourne water supply, samples for bacteriological and chemical analyses were collected from storage reservoirs, water aquaducts and from several points in the reticulation system of the city ; this investigation revealed that, with the exception of the Maroondah Aquaduct, all samples were satisfactory. In respect of the Maroondah Aquaduct the bacteriological contamination is eliminated by chlorination of the supply.

Air Pollution Control.

The Clean Air Section continued air pollution measurements encompassing dust fall, smoke density, and sulphur dioxide concentration with only a few changes in location of stations.

Six hundred and thirty-nine inspections were carried out involving investigation into complaints, stack testing, site inspections and discussions with factory management.

Approvals of new plant pursuant to the Clean Air Regulations 1961 numbered 57 ; these included chemical plants (2), ceramic works including additions (5), boiler plant (20), and various other types of plant and equipment including industrial incinerators (30).

The second Technical Conference on Clean Air was held in Melbourne in April and was attended by officers concerned with air pollution control from all States except Queensland.

There are a number of industries which continue to present special problems in air pollution control. These include the cement industry, certain sections of the metallurgical industry both ferrous and non-ferrous, and the ceramic industry. In the latter the conversion of top-fired continuous Hoffman Kilns to heavy firing by means of impulse injection systems has given rise to emission of soot and acidic smuts. This problem has also been encountered overseas, but as yet no generally applicable methods for its control have been found. In order to elucidate the factors that are conducive to the formation of acidic smuts and to find a remedy, a survey is currently being undertaken in the Chemical Engineering Department of the University of Melbourne under a grant of the Department of Health.

Consideration of the establishment of emissions standards by regulations for a number of gaseous and particulate pollutants is now in the final stage. It is proposed that the standards be substantially the same as those adopted in New South Wales early in 1964. A memorandum is shortly to be issued which will set out required chimney heights for new boiler plant and other fuel burning equipment.

GENERAL ITEMS.

Abattoirs in the Metropolitan Area.

At its meeting on 3rd March, 1964, the Commission resolved to recommend to the Government that as part of the campaign against the fly menace in the metropolis consideration be again given to the removal of abattoirs from the metropolitan area with a view to their establishment in decentralized areas.

Fly Control.

(1) *Garbage Disposal.*

It is pleasing to record that continued improvement in the standard of garbage depots has occurred largely as a result of fly control educational campaigns conducted in recent years.

In most municipalities the collection and disposal of garbage have been given higher priority in the financial estimates than previously.

The introduction of " compressor " vehicles for garbage collection, apart from economic and aesthetic reasons, should be a definite aid in fly control by preventing fly breeding in the contents during transit.

In many cases as municipal garbage depots are being filled and completed, Councils are seeking better sites for new depots, making provision for better supervision, employing the latest mechanical aids and conforming more closely to the General Sanitary Regulations.

Many waste areas of land such as old quarry holes are being reclaimed and the employment of the Sanitary Land Fill technique in this regard has become more popular as it is considered to be the most hygienic method for controlled tipping and less likely to allow for any large scale fly breeding.

These comments apply mainly to metropolitan garbage depots. However, it is felt that some country councils even allowing for their limited finances completely neglect their depots which often contain for long periods large collections of uncovered refuse and compacting by means of earth moving machines only occurs in rare instances. These " out of sight, out of mind " garbage depots are reservoirs in the winter months of latent fly pupae which break out during the first warm spells of spring weather to initiate more active fly breeding both at the depot and for some distances around.

(2) *"Garbag" System of Refuse Disposal.*

The system of garbage collection and disposal by means of a disposable paper bag or " garbag " has been the subject of a pilot survey in one section of the City of Springvale during the last twelve months.

" Garbags " are water resistant multi-wall paper sacks of approximately the same capacity as a normal garbage can. They were distributed to house-holders in the selected area on the basis of one bag per week.

A suitable metal holder with fly-proof lid retains the bag until collection day when the bag is released, the top folded over and sealed and the bag carried to the nature strip for collection. Garbage contractors found they could gather up these sacks quickly and easily and were appreciative of the cleaner and less offensive nature of their work, when they no longer had to handle dirty bins and garbage or trample down refuse in the collection truck.

The system is considered an advance in refuse disposal for several reasons :—

(*a*) All garbage is completely removed from the premises and there is no residual pollution of cans or cross-contamination of same when handled by collectors.

(*b*) The work of the collector becomes more pleasant and healthy.

(*c*) There are no garbage cans to be cleaned periodically by the householder and consequently no unpleasant odours from unclean cans whenever the lid is lifted.

(*d*) The whole sack and contents are removed as one parcel so there is no leakage of the contents. Attacks by animals are no more frequent and when they do occur are less extensive, that is, localized spillage from the tear rather than complete emptying in the case of an overturned can.

(*e*) The container action of the bag on the contents ensures that garbage taken from the kitchen whether packaged or not is placed in an almost fly proof receptacle which becomes sealed just prior to collection and remains so during the stages of collection and final disposal at the garbage depot.

If the bags are buried as in the sanitary land fill method they do not decay for several months and any fly larvae that hatch out would be suffocated or restricted from migrating to the surface. Although a few sacks might burst during the compaction process at the garbage depot this is more likely to be a single split rather than complete disintegration and larvae migration would still be reduced. It would appear that this method, apart from its obvious hygienic advantages, could become an important aid in fly control around domestic and other premises.

This pilot survey demonstrated that the only major obstacle to the adoption of the " garbag " system of garbage collection is in the cost of the paper bags which would increase the sanitary rate. It may be possible to reduce the cost of bags with mass production and the use of the outside of the bags for advertising purposes.

The only other expense to involve the householder would be in the purchase of a bagholder which costs no more than a garbage can.

Cancer Registry.

As in former years, the services of Dr. D. W. Rankin have been made available to assist the Registry, approximately two days each week, in the collection of clinical data about cancer patients in the major Melbourne metropolitan hospitals.

This information is abstracted from clinical histories in such form that it can be coded, and the information punched onto cards which can then be mechanically processed. From the resultant figures, information about cancer morbidity can be supplied to interested people.

Cancer Education.

During the year, Medical Officers of this Department have assisted the Anti-Cancer Council in giving talks to various adult groups in the community on cancer in general and to school children on the association between cigarette smoking and lung cancer.

The number of talks given by Departmental Medical Officers is as follows :—

To adults	18
To schools	26

Contamination of Food Containers.

The problems associated with the high speed packaging or filling of food containers by mechanical means were highlighted in 1963.

Three children suffered acute arsenical poisoning soon after consuming the contents of a bottle of a well known aerated beverage. One child died. Dregs found in the bottle were identified as an arsenic compound, probably a weed killer.

At the Coroner's enquiry attention was drawn to the inadequacy of the regulations dealing with the cleansing of previously used glass containers. As a consequence appropriate sections of the requirements have been redrafted.

The fact emerges that the public at large are extremely careless in the use of empty containers designed to hold foodstuffs. Many complaints reach the Department concerning foreign bodies, dirt, foul flavours and odours that have been discovered in bottles or the contents.

Reports from the Royal Children's Hospital indicate that children are frequently poisoned by kerosene accidently consumed at home from food containers.

The solution lies not only in the strict supervision of the regulations, for on this matter inspectors will receive the wholehearted co-operation of the food packer. Education of the public is needed as well.

To a certain extent glass containers or packages which are re-used suffer from a definite disadvantage on the score of cleanliness that is not a problem in the tin can, plastic receptacle or the single service container.

However, an innovation in the trade is the development of a " One-trip Glass container ". The bottle or jar is not used again by the packer. The new one trip glass container is not exposed to the risk of contamination before filling and so possesses all this advantage in the same way as the tin can or plastic receptacle.

Home Safety.

The Home Safety Convention which was held in 1964 was actively supported by the Commission through assistance given by officers of the Department.

Particular attention was directed to education of the public in order to emphasize the need to reduce injury arising out of falls, burns and poisoning.

The question whether it is advisable to specify the types of containers used for detergents and other poisonous household substance is under consideration.

Another problem under review is whether to adopt the United Kingdom lead to provide by regulation safety standards for childrens' nightdresses.

Accommodation for the Elderly Infirm.

A limited number of boarding houses have been modified by the proprietors to specialize in the care of the elderly. Such accommodation in so called " Rest Homes " has been found to be sub-standard and requires strict supervision.

Inspections have been carried out throughout the year in company with officers of the Hospitals and Charities Commission and with local Medical Officers of Health.

In some instances the elderly inmates who are mainly females have been given attention which approximates to nursing or medical attention, though it is not possible to class such care as within the scope of a Private Hospital. The medical attention arises out of the fact that private practitioners provide the necessary pharmaceutical benefits in accordance with the Pensioner Medical Service.

It is unfortunate that very few of these Rest Homes could be approved as nursing homes for the purpose of the National Health Act. As a consequence the Commonwealth benefit of £1 a day for the inmate is not available.

Civil Defence and State Disaster Planning.

Several officers have been selected during the year to attend training courses at the Civil Defence School, Macedon.

The Department has co-operated in exercises to test the functions in the field of the State Disaster Organization. These included the control of a simulated 40-mile fire front in the Healesville area, trial evacuation of the I.C.I.A.N.Z. building and a test of communication facilities.

An officer of the Industrial Hygiene Division was able to provide a comprehensive on-the-spot report concerning Civil Defence control of flood damage which followed 10 inches of rain in the vicinity of Sydney, New South Wales.

Regional planning conferences were attended at Tatura and Fern Tree Gully.

Meat Inspection and Export Meat.

At the request of the Department of Primary Industry steps were taken to introduce a uniform system of meat inspection in certain abattoirs which have been licensed to process meat for export to the U.S.A.

In conjunction with the councils concerned the Commission has approved of the appointment of veterinary officers, employed by the Department of Primary Industry as authorized meat inspectors.

The working arrangement was commenced in June, 1964. Some minor administrative difficulties have arisen, these mainly concerning the future status of local meat inspectors and the need to provide adequate supervision for all meat diverted to local trade.

Rodent Control.

Following the appointment of a Pest (Rodent) Control Officer in 1963 it has been possible to implement systematic rat control activity in the Melbourne wharf area in conjunction with officers of the Melbourne Harbour Trust.

As a preliminary it was found necessary to chart rat infected areas throughout the 10 square miles under the control of the Trust. All water front structures and areas of waste land or backwaters were surveyed.

It was found there was a widespread and in some places a heavy infestation of rats in sheds and lands under Harbour Trust control.

The methods used to eradicate rats are proving efficient. In some areas, already, infestation has been reduced. Full time staff has been appointed by the Harbour Trust Commissioners.

In addition, inspections have been carried out in 30 municipalities. Rodent infestation has been found in Railway property arising out of investigations made at the request of the City of Melbourne Medical Officer of Health.

Free Travel.

The total number of applications for free travel received during the year 1963–64 was 16,218 an increase of 179 over the previous year's total. 15,957 of these applications were granted, and 261 refused.

The expenditure involved for this period was approximately £30,000.

Royal Commission into Liquor.

The Commission is represented on the Consultative Committee appointed to assist the Commissioner.

LEGISLATION.

During the year the following legislation was given Royal Assent :—

Health (*Child Minding*) *Act* 1964 (No.7122).

This Act includes a new Part—XIA, Child Minding Centres. Regulations for the registration and general control of child minding centres are at present being prepared and it is anticipated that they will come into operation early in 1965.

Health (*Amendment*) *Act* 1964 (No. 7132).

This Act amends—

(1) Section 21 of the *Health Act* 1958 and empowers the Deputy Chief Health Officer to act and have the powers of the Chairman of the Commission of Public Health in the event of there being a vacancy in the office of Chief Health Officer or in his absence, and

(2) Section 61 of the *Health Act* 1958 to indicate that the annual charge levied by councils for the removal of rubbish, &c. shall be in respect of a period of twelve months ending on the last day of September. This amendment was introduced at the request of the Municipal Association.

Provision is also made to exclude chemists' premises from the requirements of the Act relating to food premises and penalties for offences to do with food, drugs and substances are increased.

The following regulations were also approved :—

Meat Supervision Amendment Regulations 1963.

These regulations permit the use of Crown brands on lamb which is intended for interstate trade and which will not be sold or used for human consumption in Victoria. In the event of such lamb being diverted to the local trade, it would be necessary for a strip brand to be applied to each carcase.

Eating House Amendment Regulations 1963.

These regulations repealed Clause 25 of the Eating House Regulations 1950 which provided for the cancellation of registration of an eating house by a Court of Petty Sessions on account of non-compliance with the regulations or the manner in which the eating house had been conducted.

This amendment was necessary because of advice that Clause 25 was *ultra vires*.

Meat Transport Vehicles Regulations 1963.

These regulations consolidated the 1947 regulations and introduced the following important changes :—

(1) The Regulations now apply to the whole of the State instead of meat areas as previously, and

(2) specify in greater detail the conditions under which carcasses, piece meats, chilled meat, edible offal and small goods may be transported.

PROCLAMATIONS AND ORDERS IN COUNCIL.

A new meat area was proclaimed for the whole of the Shire of Myrtleford and the existing meat area in a portion of the Shire of Romsey was revoked.

The offensive trades provisions of the *Health Act* 1958 (so far as those provisions are applicable to piggeries) were extended to the whole of the Shires of Avoca, Corio and Tullaroop and portion of the Shire of Mortlake.

The provisions of the *Health Act* 1958 relating to Eating Houses were extended to the Borough of Kyabram and the Shire of Numurkah.

Orders in Council were issued providing for the establishment of garbage depots by the Shire of Buln Buln in the municipal district of the Shire of Warragul and by the City of Williamstown in the municipal district of the City of Sunshine.

OBITUARY.

The Commission records regret at the deaths during the year of—

Dr. G. E. Cole, former Chairman of the Commission,

Dr. H. M. James, former Director of Tuberculosis, and

Mr. G. V. Stafford, former Secretary of the Commission.

Respectfully submitted,

KEVIN BRENNAN
WALTER SUMMONS
T. R. FLOOD
A. S. THOMSON
H. McLORINAN
A. K. LINES
A. C. PITTARD
} Members of the Commission

A. T. GARDNER, Secretary,

Melbourne, 15th September, 1964.

By Authority: A. C. Brooks, Government Printer, Melbourne.

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